

REMARKS

Claims 1-19 were presented for examination upon filing of the subject application. In the Response to Requirement of Restriction of August 20, 2010, Applicants elected claims 1-10 as the first one of two inventions identified in the Restriction Requirement of May 18, 2010. Applicants elected claims 1-5, 8 and 10 for the “Election of Species, and Applicants elected claims 1-10 for the “Election of Species, II”. The Office Action mailed September 20, 2010 rejects claims 1-5, 8, 9/8 and 10. Applicants herein amend claims 1-3, 8 and 9 to more clearly recite Applicants’ invention and to correct for antecedent basis. Applicants herein cancel claim 10.

Claims 1-5, 8 and 9 as set forth after the amendments made herein are now presented for consideration.

Rejection of Claims 10 under 35 U.S.C. §112

The Office Action rejects claim 10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Office Action states that the word “minimizes” renders the claim indefinite because it is a method limitation in an apparatus claim.

Claim 10 is herein canceled therefore its rejection is rendered moot.

Rejection of Claims 1-5 and 8-10 under 35 U.S.C. §103(a)

The Office Action rejects claims 1, 2 and 10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,019,372 to Parkell et al.

(hereinafter “Parkell”) in view of either U.S. Patent No. 5,238,557 to Schneider et al. (hereinafter “Schneider”) or U.S. Patent No. 4,966,695 to Joshua (hereinafter “Joshua”).

Claim 10 is canceled herein therefore its rejection is rendered moot. Applicants respectfully traverse the rejection with respect to claims 1 and 2 as amended herein because the cited references, either alone or in combination, do not teach or suggest all of the claimed limitations of Applicants’ invention.

Applicants’ invention as set forth in independent claim 1 recites a device for holding a separation column or cartridge. The device includes a housing having a chamber for at least one column or cartridge for performing separations. The housing has a heating element to maintain the chamber at a constant temperature. The device also includes positioning means to place the outlet off the column or cartridge in proximity to a detector.

Advantageously, Applicants’ invention addresses the problem of placing the column or cartridge close to the detector to reduce the length of tubing to thereby limit band spreading. In addition, Applicants’ invention addresses the problem of changing temperature of the column or cartridge when so positioned which can lead to shifts in the detected peaks. (See page 2, lines 1-9 of Applicants’ originally-filed specification.)

Parkell discloses a chromatographic detector system that includes an optically transparent flow cell that receives the output of a chromatographic column. The output passes through a connecting means which is in thermal equilibrium with the flow cell at least for a portion of the length of the connecting means. Liquid passing through the connecting means is therefore in thermal equilibrium with the flow cell before entering the optically transparent portion. As a result, detector noise that would otherwise result from effluent not in thermal equilibrium passing through the optically

transparent region of the flow cell is avoided. (See FIG. 3B as an example of such detector noise.)

The disclosure of Parkell lacks a teaching of fundamental aspects of Applicants' invention as recited in claim 1. First, Parkell does not relate in any way to a housing having a chamber for the column. Instead, Parkell relates to how to control the temperature of the output of the column. Second, Parkell does not disclose any means to place the output of the column proximate to the detector. Instead, Parkell simply describes configurations in which the column is directly coupled to the flow cell, that is, secured to the flow cell in a permanent sense. Finally, Parkell's connecting means only brings the flow coming from the column into thermal equilibrium with the flow cell; however, the connecting means does not control the temperature of the column or even maintain a constant temperature of the column.

On page 2, the Office Action relies on either Schneider or Joshua to show use of a housing with a heater. Regardless of whether or not these references show the use of a housing with a heater, neither Schneider nor Joshua teaches the positioning means limitation discussed above as missing from the disclosure of Parkell, namely, a positioning means for placing the outlet of a column in proximity to a detector.

At least for the reasons set forth above, Applicants respectfully submit that Parkell, Schneider and Joshua, either alone or in combination, do not teach or suggest all the limitations in claim 1. Thus Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §103(a) be withdrawn. Claim 2 depends from claim 1 and therefore includes all the limitations of claim 1. Thus Applicants respectfully request withdrawal of the rejection of claim 2 under 35 U.S.C. §103(a) at least for the reasons provided with respect to claim 1 above.

Claims 3-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Parkell in view of either Schneider or Joshua, and further in view of U.S. Patent No. 5,083,158 to Kashima et al. (hereinafter “Kashima”) and U.S. Patent No. 4,732,672 to Kiang et al. (hereinafter “Kiang”). Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Parkell in view of either Schneider or Joshua, Kashima and Kiang, and further in view of U.S. Patent No. 4,484,061 to Zelinka et al. Claims 8 and 9/8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Parkell in view of either Schneider or Joshua, and further in view of either U.S. Patent No. 6,036,855 to Shalon et al. or U.S. Patent No. 6,294,088 to Allington et al.

Claims 3-5, 8 and 9 depend from allowable base claim 1 and therefore include all of the limitations of claim 1. Consequently, claims 3-5, 8 and 9 are allowable over the cited references for at least the reasons provided above in connection with claim 1. Thus Applicants respectfully request that the rejection of these dependent claims under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims that have not been expressed.

In view of the remarks made herein, Applicant submits that the application is in condition for allowance and request early favorable action by the Examiner.

If the Examiner believes that a telephone conversation with the Applicant's representative would expedite allowance of this application, the Examiner is cordially invited to call the undersigned.

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Respectfully submitted,

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